



THE
SPRAY NOZZLE
PEOPLE

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Case Study

SOLVING CLOGGING FROM
SPENT GRAIN & HUSKS

BREWING TANK WASHING SOLUTION



Seeds, skins, pulp, stems, and grains in a recirculated water system can cause blockage in many tank washing nozzle designs, inhibiting their ability to work correctly. Cleaning tanks and maintaining a sanitary environment is essential to success in food processing and beverage industries. Problems within these systems lead to loss of time, money, and resources – an unacceptable situation.

► PROBLEM: CLOGGING WITH RECIRCULATED WATER

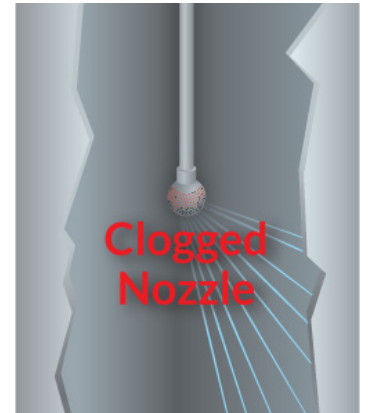


A large beer producer was having continual problems with clogging spray balls in their lauter / mash tun. The spent grain and husks were finding their way into the recirculated cleaning fluids and plugging the small holes in the spray ball resulting in ineffective cleaning. Rotary spray balls also clogged or jammed and stopped spinning for similar reasons.

► SOLUTION: THE BETE HYDROCLAW[®]



The HydroClaw is the worlds first 360-degree clog resistant tank cleaning head. It was originally developed by Bete Fog nozzle to solve clogging problems in the wine industry where grape pips and skin often cause similar issues to those being experienced in this case. The HydroClaw's patent pending design gives 3-5 times the free passage of conventional spray balls up to a massive 7.6 mm. This means that most contaminating particles can flow through the tank cleaning head without causing any clogging.





WHY CHOOSE SNP FOR YOUR FOOD INDUSTRY NOZZLE NEEDS?

- The ability to solve unique and complex process challenges
- ISO 9001:2015 Certified
- Custom nozzle design and manufacturing with consistent quality assurance

With SNP you get our world-class customer support from a nozzle industry pioneer who has been creatively solving problems for over 15 years.



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Results

The HydroClaw was initially tested on one of the six problem tanks at the site and they worked well. After a one month of testing no clogging issues occurred. As a result the HydroClaw was rolled out to the 6 other tanks.

As well as the solving of the clogging issues the customer also marked an improvement in cleaning times. The HydroClaw had a more powerful cleaning action than the traditional spray balls and so, as a bonus, the cleaning times were also reduced.

CHALLENGES WITH OTHER TANK WASHING NOZZLES

- Small holes and moving parts lead to clogging
- Nozzle blockage leads to unclean tanks, and more maintenance downtime becomes costly
- The expense of high water consumption from extra wash cycles and the inability to use recycled water effectively

The HydroClaw® was explicitly designed to offer a tank washing innovation for wineries – allowing grape seeds and skins to pass through the nozzle. This design feature makes it the perfect nozzle for other food processing applications. It is being used in the following tank cleaning processes.

BEER MAKING
JUICE PRODUCTION
JAM MAKING
TOMATO PROCESSING

ADVANTAGES OF THE BETA HYDROCLAW®

- Nozzle designed to let particulates and sediment flow through with no clogging
- Clog resistance and low maintenance = reduced downtime and more economical water usage
- 316L stainless steel construction means it is perfect for clean-in-place (CIP) and food grade applications
- Complete 360-degree coverage